

AMENDMENTS TO THE CLAIMS

1. (currently amended) Broaching tool for machining bore surfaces namely for introducing at least one groove, with a cutter head (5) having at least one cutter (69) and with a body (3) bearing the cutter head (5), ~~characterized in that~~ wherein the cutter head (5) can undergo a rotary motion and is disposed eccentrically in the body (3) and that the middle axis (65) of the cutter head (5) forms an acute angle α with the middle axis (7) of the body (3).

2. (currently amended) Broaching tool as defined in claim 1, ~~characterized in that~~ wherein the cutter head (5) comprises a tool shank (73) which at its end is provided with a cutter collar (67) and which with its other, opposite end is rotatably disposed in the body (3).

3. (currently amended) Broaching tool as defined in claim 1 ~~or 2~~, ~~characterized in that~~ wherein the cutter head (5) is replacably disposed on the tool shank (73).

4. (currently amended) Broaching tool as defined in ~~one of the preceding claims~~, ~~characterized in that~~ claim 1, wherein the at least one cutter (69) lies on an imaginary circular path around the middle axis (65) of the cutter head (5).

5. (currently amended) Broaching tool as defined in ~~one of the preceding claims~~, ~~characterized in that~~ claim 1, wherein there are provided several cutters (69) - preferably disposed at a distance from one another - that

lie on an imaginary circular path around the middle axis ~~(65)~~ of the cutter head ~~(5)~~.

6. (currently amended) Broaching tool as defined in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the at least one cutter ~~(69)~~ has a guiding surface ~~(95)~~ which is inclined at an angle toward the middle axis ~~(65)~~ of the cutter head ~~(5)~~.

7. (currently amended) Broaching tool as defined in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the cutter head ~~(5)~~ has a guiding arrangement ~~(79)~~ with a guiding section.

8. (currently amended) Broaching tool as defined in ~~one of the preceding claims 4 to 7, characterized in that~~ claim 4, wherein the middle point ~~(84)~~ of the circular path of the at least one cutter ~~(69)~~ or the middle point ~~(83)~~ of the guiding section lies on the intersection of the middle axis ~~(7)~~ of the body ~~(3)~~ and the middle axis ~~(65)~~ of the cutter head ~~(5)~~.

9. (currently amended) Broaching tool as defined in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the tool shank ~~(73)~~ is supported in the body ~~(3)~~ by means of a bearing arrangement ~~(13)~~ that absorbs radial and axial forces.

10. (currently amended) Broaching tool as defined in claim 9, ~~characterized in that~~ wherein the bearing arrangement ~~(13)~~ has at least one -

and preferably two - angular ball bearings ~~(21, 23)~~ and a grooved ball bearing ~~(51)~~.

11. (currently amended) Broaching tool as defined in ~~one of the preceding claims, characterized by~~ claim 1, further comprising a ~~coolant/lubricant~~ coolant/lubricant system whereby a coolant lubricant can be conducted for conducting a coolant/lubricant through the body (3) and through the cutter head (5) to the at least one cutter (69).

12. (currently amended) Method for machining the surface of a bore, namely for introducing at least one groove, by means of a cutter head provided with at least one cutter and by means of a broaching tool with a supporting body, particularly by means of a broaching tool as defined in ~~one of claims 1 to 11, characterized in that~~ claim 1, wherein the cutter head is introduced into the bore in a work piece that is to be machined, and during the rotary motion of the body and a relative axial movement between the broaching tool and the work piece brings about a tumbling movement and a following movement that is induced by the at least one groove formed in the bore surface.